*This listing of claims will replace all prior versions, and listings, of claims in the application:*

**Listing of Claims:**

**Claims 1-3 (Canceled).**

**Claim 4 (Currently Amended):** A method for executing a noise reduction process to images composed of a plurality of pixels, the method comprising:

calculating ~~finding the~~ an edge level in target pixels that are ~~the~~ an object of ~~the~~ a smoothing process;

determining ~~the~~ an edge angle that is ~~the~~ an angle of an array of edge-forming pixels including the target pixels based on the calculated edge level;

obtaining a filter that has orientation properties extracting pixels in a given direction as reference pixels and matching the determined edge angle, wherein the filter is a median filter and the filter has an extraction area which is wider in a direction parallel to than in a direction perpendicular to the given direction; ~~and~~

executing a first smoothing process on the target pixels using the filter that has been obtained;

when the calculated edge level is lower than a prescribed edge level, calculating a size of an edge component of the target pixels; and

executing a second smoothing process on the target pixels using a moving average filter having extraction areas that are smaller as the calculated size of the edge component increases.

**Claims 5-7 (Canceled).**

**Claim 8 (Currently Amended):** A method according to claim ~~7~~ 4, further comprising:

separating ~~the~~ pixel values of ~~the~~ an image by color difference components and brightness components,

wherein the edge level of the target pixels is calculated by calculating edge levels for the color difference and brightness components, and the edge level of the target pixels is the greatest edge level among the calculated edge levels,

a ~~the dispersion value~~ size of the edge component of the target pixels is calculated by calculating ~~the dispersion values~~ sizes of the edge component for the color difference and brightness components, and the ~~dispersion value~~ size of the edge component of the target

pixels is the greatest ~~dispersion value~~ size of the edge component among the calculated sizes of the edge component ~~dispersion values~~, and

the first and second smoothing processes are only executed on the color difference components of the target pixels.

**Claim 9 (Currently Amended):** A method for executing a noise reduction process to images composed of a plurality of pixels, the method comprising:

calculating ~~finding the~~ an edge level in target pixels which are ~~the~~ an object of ~~the~~ a smoothing process;

calculating ~~the~~ a gradient of the target pixels based on the calculated edge level;

obtaining a filter matching an edge angle on ~~the~~ an image using the calculated gradient based on a predetermined relationship between the edge angles and the gradients, wherein the edge angle is an angle of an array of edge-forming pixels on the image, wherein the filter is a median filter, and has orientation properties that extracts pixels oriented in ~~the~~ a same angle direction as the edge angle and an extraction area which is wider in a direction parallel to than in a direction perpendicular to a given direction; ~~and~~

executing a first smoothing process on the target pixels using the filter that has been obtained;

when the calculated edge level is lower than a prescribed edge level, calculating a size of an edge component of the target pixels; and

executing a second smoothing process on the target pixels using a moving average filter having extraction areas that are smaller as the calculated size of the edge component increases.

**Claims 10-12 (Canceled).**

**Claim 13 (Currently Amended):** A method according to claim ~~12~~ 9, further comprising:

separating ~~the~~ pixel values of the image by color difference components and brightness components,

wherein the edge level of the target pixels is calculated by calculating edge levels for the color difference and brightness components, and the edge level of the target pixels is the greatest edge level among the calculated edge levels,

a ~~the dispersion value~~ size of the edge component of the target pixels is calculated by calculating ~~the dispersion values~~ sizes of the edge component for the color difference and brightness components, and the ~~dispersion value~~ size of the edge component of the target pixels is the greatest ~~dispersion value~~ size of the edge component among the calculated sizes of the edge component ~~dispersion values~~, and

the first and second smoothing processes are only executed on the color difference components of the target pixels.

**Claim 14 (Canceled).**

**Claim 15 (Currently Amended):** An image processing apparatus for executing a noise reduction process to images composed of a plurality of pixels, the image processing apparatus comprising:

an edge level calculating ~~logic for calculating~~ module that calculates ~~the~~ an edge level in ~~the~~ target pixels that are ~~the~~ an object of ~~the~~ a smoothing process;

an edge angle determination ~~logic for determining~~ module that determines ~~the~~ an edge angle that is ~~the~~ an angle of an array of edge-forming pixels including the target pixels based on the calculated edge level;

a memory ~~logic for storing~~ module that stores a plurality of filters in accordance with edge angles, wherein ~~the~~ each filter has orientation properties that extracts pixels in a given direction as reference pixels;

a filter selection ~~logic for selecting~~ module that selects a filter with orientation properties matching the determined edge angle from the memory ~~logic~~ module; ~~and~~

a first smoothing ~~logic for executing~~ module that executes a smoothing process on the target pixels using the selected filter;

a size of an edge component calculating module that calculates a size of an edge component of the target pixels when the calculated edge level is lower than a prescribed edge level; and

a second smoothing module that executes a smoothing process on the target pixels using a moving average filter having extraction areas that are smaller as the calculated size of the edge component increases when the calculated edge level is lower than the prescribed edge level.

**Claim 16 (Currently Amended):** An image processing apparatus for executing a noise-reduction process to images composed of a plurality of pixels, the image processing apparatus comprising:

an edge level calculating ~~logic for calculating~~ module that calculates ~~the~~ an edge level in target pixels that are ~~the~~ an object of ~~the~~ a smoothing process;

a gradient calculating ~~logic for calculating~~ module that calculates ~~the~~ a gradient of the target pixels based on the calculated edge level;

a memory ~~logic for storing~~ module that stores a plurality of filters associated with the gradient for a plurality of edge angles, wherein ~~the~~ each filter has orientation properties that extracts pixels oriented in ~~the~~ a same angle direction as the edge angle, which is ~~the~~ an angle of an array of edge-forming pixels on ~~the~~ an image;

a filter selection ~~logic for selecting~~ module that selects a filter matching the edge angle on the image from the memory ~~logic~~ module based on the calculated gradient; and

a first smoothing ~~logic for executing~~ module that executes a smoothing process on the target pixels using the selected filter

a size of an edge component calculating module that calculates a size of an edge component of the target pixels when the calculated edge level is lower than a prescribed edge level; and

a second smoothing module that executes a smoothing process on the target pixels using a moving average filter having extraction areas that are smaller as the calculated size of the edge component increases when the calculated edge level is lower than the prescribed edge level.

**Claim 17 (Canceled).**

**Claim 18 (Currently Amended):** A computer readable medium that stores a program for executing a noise reduction process to images composed of a plurality of pixels, said program being executed on a computer to implement:

a function for calculating ~~the~~ an edge level in ~~the~~ target pixels that are ~~the~~ an object of ~~the~~ a smoothing process;

a function for determining ~~the~~ an edge angle that is ~~the~~ an angle of an array of edge-forming pixels including the target pixels based on the calculated edge level;

a function for obtaining a filter that has orientation properties extracted using pixels in a given direction as reference pixels and has orientation properties matching the determined edge angle; ~~and~~

a function for executing a first smoothing process on the target pixels using the filter that has been obtained;

when the calculated edge level is lower than a prescribed edge level, a function for calculating a size of an edge component of the target pixels; and

a function for executing a second smoothing process on the target pixels using a moving average filter having extraction areas that are smaller as the calculated size of the edge component increases.

**Claim 19 (Currently Amended):** A computer readable medium that stores a program for executing a noise reduction process to images composed of a plurality of pixels, said program being executed on a computer to implement:

a function for calculating ~~the~~ an edge level in target pixels which are ~~the~~ an object of ~~the~~ a smoothing process;

a function for calculating ~~the~~ a gradient of the target pixels based on the calculated edge level;

a function for obtaining a filter matching an edge angle on ~~the~~ an image using the calculated gradient based on a predetermined relationship between ~~the~~ edge angles and the gradients, wherein ~~the~~ an edge angle is an angle of an array of edge-forming pixels on the image, wherein the filter has orientation properties that extracts pixels oriented in ~~the~~ a same angle direction as the edge angle; ~~and~~

a function for executing a first smoothing process on the target pixels using the filter that has been obtained;

when the calculated edge level is lower than a prescribed edge level, a function for calculating a size of an edge component of the target pixels; and

a function for executing a second smoothing process on the target pixels using a moving average filter having extraction areas that are smaller as the calculated size of the edge component increases.

**Claim 20 (New):** An image processing apparatus according to claim 15, further comprising:

a separating module that separates pixel values of the image by color difference components and brightness components;

wherein the edge level of the target pixels is calculated by calculating edge levels for the color difference and brightness components, and the edge level of the target pixels is the greatest edge level among the calculated edge levels,

the size of the edge component of the target pixels is calculated by calculating sizes of the edge component for the color difference and brightness components, and the size of the edge component of the target pixels is the greatest size of the edge component among the calculated sizes of the edge component, and

the first and second smoothing process are only executed on the color difference components of the target pixels.

**Claim 21 (New):** An image processing apparatus according to claim 16, further comprising:

a separating module that separates pixel values of the image by color difference components and brightness components;

wherein the edge level of the target pixels is calculated by calculating edge levels for the color difference and brightness components, and the edge level of the target pixels is the greatest edge level among the calculated edge levels,

the size of the edge component of the target pixels is calculated by calculating sizes of the edge component for the color difference and brightness components, and the size of the edge component of the target pixels is the greatest size of the edge component among the calculated sizes of the edge component, and

the first and second smoothing process are only executed on the color difference components of the target pixels.

**Claim 22 (New):** A computer readable medium according to claim 18, further comprising:

a function for separating pixel values of the image by color difference components and brightness components;

wherein the edge level of the target pixels is calculated by calculating edge levels for the color difference and brightness components, and the edge level of the target pixels is the greatest edge level among the calculated edge levels,

the size of the edge component of the target pixels is calculated by calculating sizes of the edge component for the color difference and brightness components, and the size of the edge component of the target pixels is the greatest size of the edge component among the calculated sizes of the edge component, and

the first and second smoothing processes are only executed on the color difference components of the target pixels.

**Claim 23 (New):** A computer readable medium according to claim 19, further comprising:

a function for separating pixel values of the image by color difference components and brightness components;

wherein the edge level of the target pixels is calculated by calculating edge levels for the color difference and brightness components, and the edge level of the target pixels is the greatest edge level among the calculated edge levels,

the size of the edge component of the target pixels is calculated by calculating sizes of the edge component for the color difference and brightness components, and the size of the edge component of the target pixels is the greatest size of the edge component among the calculated sizes of the edge component, and

the first and second smoothing processes are only executed on the color difference components of the target pixels.